

Build Your DIN A SAUR Solar Cooker



Solar Brother offers you the plans for the Din a Saur solar solar cooker.

Based on an original idea by Bernard Mueller (), build your own solar panel oven in less than 5 minutes at a lower cost. Cooking and tasting your favorite dishes with the energy of the sun is within everyone 's reach! We advise you to opt for the S.Reflect [®] mirror in order to obtain optimal performance and mirror flexibility.



How it works



This solar cooker works with thermal solar energy which uses 3 principles.

1/ concentration: Place the cooker facing the sun. the mirrors receive the sun's rays and concentrate them on the pot. They act as reflectors.

2/ capture: the black or dark pot absorbs the sun's rays without reflecting them. IMPORTANT: do not use white or stainless steel which reflects light. Reorient the cooker every 5-15 minutes to follow the sun.

3 / Storage: To ensure that the heat remains around the pot and that the temperature rise is effective, place the container in a transparent cooking bag (available in store or on our website). It can also be surrounded by two glass or pyrex dishes to reproduce the principle of the greenhouse effect.

For your safety – Wear goggles to protect your eyes from mirror glare when handling the oven in direct sunlight. – Put on protective gloves to remove the hot dish after cooking.

The equipment you need!

a large table of at least 1 m² *a graduated ruler* (as big as possible! You can also use a tape measure) *a utensil to make the lines* (ruler, piece of wood, ...) *a pencil* / marker / pen to mark the lines

- a pair of scissors

– two hanging systems : clothes pegs, staples or brads,... depending on your tastes and what you have available.

Manufacturing steps of your DIN A SAUR oven!

Step 1: Sizing the surface of the S-REFLECT mirror

The surface must meet the following condition: Length = 1.414 x Width. This actually corresponds to the usual standards A4, A3, A2...

We advise to take a surface of size A1 (594 mm x 841 mm) to obtain sufficient heating power.

This allows maximum use of the 1 m² area of S- Reflect . So start by cutting your surface of one square meter to the following dimensions: $59.4 \text{ cm} \times 84.1 \text{ cm}$.

You thus obtain a surface of size A1 which will serve as a working base for the rest of the steps.

Step 2: Preparation of the surface of the S-REFLECT mirror

In order to be able to obtain your solar panel oven, it is necessary to make some origami movements on your A1 sheet.

On the diagram below, are indicated the folds and cuts to be made that we will detail together.



The dotted lines correspond to folds while the solid lines correspond to cutting. For this step, arm yourself with your pair of scissors, your ruler, your marker/pencil/pen and your large tracing utensil.



Draw two horizontal straight lines, the first located 28 cm from the top of your mirror film and the second located 28 cm from the bottom of your mirror film.



Then draw two other vertical lines located 22.3 cm from each side. They must therefore be spaced 14.8 cm apart, extend them to the upper horizontal line.



Connect using two lines as in the image opposite.



Using the pair of scissors, cut out the two segments indicated in red.

Step 3 : Folding the S-REFLECT mirror

In order to finish your solar panel oven, you need to bend your mirror film according to the picture below.



To hold the folding, it is necessary to place two fastening systems, materialized here by two clothespins.

You are free to use the system you want (clothes pegs, staples, brads, etc.)

Cheer ! You can now cook with your Din a Saur solar oven.

To improve cooking, remember to slightly raise your cooking container (for example using small stones).



Share your achievement with the Solar Family!

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